

REMARKS

In the Office Action mailed July 27, 2007, the Examiner rejected claims 24, 26-46. Applicants explain below their belief that these rejections should be withdrawn.

I. Rejections under 35 USC 103

The Office Action rejected claims 24 and 26-46 as being obvious under 35 USC 103 in view of one or more of the following references: Winckler et al. (US Patent No. 6,420,047); James (US Patent No. 4,368,323); Wang (U.S. Patent 6,436,549); Ladang et al (US 2002/0153633); Rayfield et al. (US Patent No. 4,898,620) and Tickart et al (US 2002/0082350).

The Law

To establish prima facie obviousness...all the claim limitations must be taught or suggested by the prior art." In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Moreover, "All words in a claim must be considered in judging the patentability of that claim again the prior art." In re Wilson, 424 F2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Furthermore,

A patent composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art. Although common sense directs caution as to a patent application claiming as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the art to combine the elements as the new invention does. Inventions usually rely upon building blocks long since uncovered, and claimed discoveries almost necessarily will be combinations of what, in some sense, is already known. KSR International Co. v. Teleflex Inc., 82 USPQ2d 1385, (U.S. Supreme Court, 2007)

The Rejections

The Office Action suggests that Winckler et al. disclose molding of a sheet molding compound, "at an elevated temperature thereby forming a cross-linked matrix

within the sheet molding compound". Applicants, throughout the prosecution of the present application, have suggested that Winckler et al. do not disclose such molding or matrix. Applicants therefore incorporate those previously presented arguments herein by reference as reasoning why the rejections of the claims should be withdrawn.

Claims 24, 38 and 45

In rejecting independent claims 24, 38 and 45, the Office Action admits that Winckler "does not show one of the particularly claimed linking agents" recited in those claims. However, the Office Action then suggests that the these claims are obvious and specifically reads:

James shows that it that is known to carry out a method wherein a surfactant and a diepoxide work together, both functioning as known cross-linking agents ... James and Winckler are combinable because they are concerned with a similar technical field, namely, methods of molding including wet slurry molding processes. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use James' diepoxide as the linking agent in Winckler's molding process in order to take advantage of its bridging and linking abilities.

Applicants contend that these suggestions by the Office Action are flawed since they relies on factual misstatements and do not provide sound reasoning as to what would lead the skilled artisan to arrive at the invention of the claims of the present application.

The Office Action statement that both James and Winckler et al. are from the field of molding including wet slurry molding is incorrect. Applicants find no mention of molding within James. Rather, James discloses attachment of a surfactant to a fibrous material such as a wood pulp in order to increase wettability of the fibrous material. Such wettability can be important, as discussed in James, for paper products such as napkins. However, attachment of a surfactant to fibrous material is quite unrelated to molding of macrocyclic oligoesters for forming plastics and, as such, James is from a

field quite unrelated to the field of Winckler et al. and quite unrelated to the invention of the present application.

Moreover, there is no reasonable expectation of success in combining the teachings of James with Winckler et al. The teaching in James of attaching a surfactant to a fibrous material using a diepoxide does not suggest a manner in which a cross-linked matrix can be formed in a plastic that is formed with macrocyclic oligoesters. This is particularly the case where there is no such cross-linked matrix is formed in Winckler et al. as discussed above. In summation, the Office Action has taken a teaching from James, which is from a field unrelated to Winckler et al., and has then suggested that such teaching would result in a cross-linked matrix that is not suggested by either James or Winckler et al. Applicants contend that such a combination is unfounded and, at best, is based upon impermissible hindsight.

Applicants also note that Winckler et al. consistently teach away from the formation of a cross-linked matrix. In particular, Winckler et al. repeatedly suggest the thermoplastic nature of the products formed by their teaching and such thermoplastic nature specifically excludes the formation of a cross-linked matrix. As examples, Col. 1, lines 33-45 and Col. 3, lines 40-57 of Winckler et al. teach the desirability of the thermoplastic nature of their material.

The motivation provided by the Office Action for the combination of Winckler et al. and James is also flawed. The Office Action suggests it would have been obvious to use James' diepoxide to "take advantage of its bridging and linking abilities." However, the Office Action provides no reasoning as to why the skilled artisan would, based upon the prior art and the knowledge of the skilled artisan, view these abilities as advantageous. James uses the diepoxide to form a more permanent link between a fiber and a surfactant. In contrast, Winckler et al. teach the formation of a thermoplastic material that can be reprocessed. The teachings of James would likely destroy the purpose of the teachings of Winckler et al.

For all of the reasons above, Applicants request that the rejection of claims 24, 38, 45 and their dependents be withdrawn.

Moreover, claims 24, 38 and 45 of the present invention recite a cross-linked matrix that can provide advantageous traits to the sheet molding compound formed of macrocyclic oligoesters in those claims. As examples, the matrix can provide higher temperature performance and/or desirable strength properties to the molding compound. Neither the subject matter of claims 24, 38 and 45 nor these advantages are taught or suggested by the prior art. As such, Applicants contend that these claims are patentable.

Claims 32, 42 and 46

The Office Action suggest that Winckler et al. disclose the use of a low profile agent including a clay that is intercalated with the macrocyclic oligoester and exfoliated during polymerization for offsetting shrinkage. The Office Action has suggested that such intercalation and exfoliation are inherent for the purposes of increasing modulus in Winckler et al. Applicants contend that this claim of inherency is flawed. Clays can be included in a plastic for a variety of reasons and can provide various properties. Thus, the recitation in claims 32, 42 and 46 of the clay being exfoliated during molding to offset shrinkage is not disclosed in Winckler et al. Moreover, it is much less likely that Winckler et al. would need to offset shrinkage since it is thermoplastic as opposed to a having a cross-linked matrix, which is more likely to experience shrinkage like that recited in the claims of the present application.

Claim 37

The Office Action suggests that it would have been obvious to use the thermosetting resin of Rayfield et al. in combination with Winckler et al. in order to bolster strength and heartiness of the final molded article. However, as discussed above, Winckler et al. is consistently directed to and discusses the desirability of the formation of a thermoplastic. As such, the skilled artisan would likely be motivated to maintain the mixture of Winckler et al. without any thermosetting resins. Further, the

Office Action provides no support in the cited prior art or the knowledge of the skilled artisan that such thermosetting resin would provide the “strength and heartiness” that the Office Action suggests.

For these reasons, Applicants additionally request that the rejections of claims 32, 37, 42 and 46 be withdrawn as well.

Further, by the present amendment, it does not follow that the amended claims have become so perfect in their description that no one could devise an equivalent. After amendment, as before, limitations in the ability to describe the present invention in language in the patent claims naturally prevent the Applicants from capturing every nuance of the invention or describing with complete precision the range of its novelty or every possible equivalent. See, Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 62 USPQ2d 1705 (2002). Accordingly, the foregoing amendments are made specifically in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicants would otherwise be entitled.

CONCLUSIONS

In view of Applicants' amendments and remarks, the Examiner's rejections are believed to be rendered moot. Accordingly, Applicants submit that the present application is in condition for allowance and requests that the Examiner pass the case to issue at the earliest convenience. Should the Examiner have any question or wish to further discuss this application, Applicant requests that the Examiner contact the undersigned at (248) 292-2920.

If for some reason Applicant has not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent the abandonment of this application, please consider this as a request for an extension for the required time period and/or authorization to charge our Deposit Account No. 04-1512 for any fee which may be due.

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Respectfully submitted,



Scott Chapple
Registration No. 46,287
DOBRUSIN & THENNISCH PC
29 W. Lawrence Street
Suite 210
Pontiac, MI 48342
(248) 292-2920

Customer No. 25215